

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A differential response light-receiving device comprising: a semiconductor electrode comprising an electrically conductive layer and a photosensitive layer containing a semiconductor sensitized by a dye; an ion-conductive electrolyte layer; and a counter electrode, said differential response light-receiving device making time-differential response to quantity of light to output a photoelectric current, said semiconductor sensitized by a dye primarily adsorbing absorbing a light to cause the generation of electrons and positive holes in said dye, and thereafter said semiconductor receiving and conveying said electrons or said holes,

wherein said ion-conductive electrolyte layer is free of redox species, and wherein said semiconductor is a metal chalcogenide.

Claims 2 and 3. (canceled)

4. (currently amended): The differential response light-receiving device according to claim 3 1, wherein said semiconductor is a metal oxide selected from the group consisting of TiO₂, ZnO, SnO₂ and WO₃.

5. (previously presented): The differential response light-receiving device according to claim 1, wherein said differential response light-receiving device comprises a plurality of

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No.: 09/963,419

semiconductor electrodes, photosensitive wavelengths of said plurality of semiconductor electrodes being different from each other, and said ion-conductive electrolyte layer is disposed between said plurality of semiconductor electrodes and said counter electrode.

6. (previously presented): The differential response light-receiving device according to claim 5, wherein said plurality of semiconductor electrodes are arranged in such order that said photosensitive wavelengths are increasing from light incident side of said differential response light-receiving device.

7. (previously presented): The differential response light-receiving device according to claim 6, wherein said plurality of semiconductor electrodes comprises a blue-sensitive semiconductor electrode, a green-sensitive semiconductor electrode and a red-sensitive semiconductor electrode arranged in this order from said light incident side of said differential response light-receiving device.

8. (previously presented): A composite light-receiving device comprising the differential response light-receiving device recited in claim 1 and a stationary response light-receiving device, said differential response light-receiving device and said stationary response light-receiving device being arranged horizontally to said light-receiving surface or said differential response light-receiving device being stacked on said stationary response light-receiving device in the direction of light incidence.

9. (previously presented): The composite light-receiving device according to claim 8, wherein said differential response light-receiving device and said stationary response light-

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No.: 09/963,419

receiving device are stacked.

10. (previously presented): The composite light-receiving device according to claim 8, wherein said stationary response light-receiving device comprises: a semiconductor electrode comprising an electrically conductive layer and a photosensitive layer containing a semiconductor sensitized by a dye; a charge transfer layer comprising a hole-transporting material or an electrolyte composition containing redox species; and a counter electrode.

Claim 11. (canceled).

12. (currently amended): The composite light-receiving device according to claim 11, wherein said semiconductor within said stationary response light-receiving device is a metal oxide selected from the group consisting of TiO₂, ZnO, SnO₂ and WO₃.

13. (previously presented): The composite light-receiving device according to claim 10, wherein said stationary response light-receiving device comprises a plurality of semiconductor electrodes, photosensitive wavelengths of said plurality of semiconductor electrodes being different from each other, and said charge transfer layer is disposed between said plurality of semiconductor electrodes and said counter electrode.

14. (original): The composite light-receiving device according to claim 13, wherein said plurality of semiconductor electrodes are arranged in such order that said photosensitive wavelengths are increasing from light incident side of said composite light-receiving device.

15. (original): The composite light-receiving device according to claim 14, wherein said

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No.: 09/963,419

plurality of semiconductor electrodes comprises a blue-sensitive semiconductor electrode, a green-sensitive semiconductor electrode and a red-sensitive semiconductor electrode arranged in this order from said light incident side of said composite light-receiving device.

16. (original): An image sensor comprising a plurality of pixels, wherein each of said pixels comprises the differential response light-receiving device recited in claim 1.

17. (original): An image sensor comprising a plurality of pixels, wherein each of said pixels comprises the differential response light-receiving device recited in claim 8.